

Remarks

In response to the restriction requirement stated in paragraph 3-11 of the Office Action, Applicants provisionally elect to prosecute Examiner's Claim Group I, claims 1-8, 13, and 14. This provisional election is with traverse to the restriction requirement. The claims in Groups II and III have been cancelled consistent with this provisional election, but such cancellation is without prejudice to a divisional application, and (pursuant to the remarks below) the Examiner is urged to reinstate those claims. Claims 19 and 20 have been added and will be treated as part of Group I since they depend from claims 1 and 6.

Claim Groups I – III are all related as claims to multilayer polymeric webs in which there are at least two layers discontinuous in the cross-web direction embedded between continuous layers. The webs of all three claim groups can be made by similar processes using similar apparatus. A search for the multilayer films of any one of the three claim groups would normally include a search for those classes applicable to the other groups, the field of search being in effect co-extensive.

MPEP §803 states that “[i]f the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.” Therefore, it is not mandatory to make a restriction requirement in all situations where it might be deemed proper. In the interest of economy, reconsideration and withdrawal of the restriction requirement are requested.

Claims 1-8, 13, and 14 have been rejected under 35 USC § 103(a) as unpatentable over German Patent 19806452 or PCT Publication WO 92/12857, each taken in view of either Wyeth US Patent 3,982,877 or Schrenk US Patent 3,759,647. This rejection is traversed.

Attached to this amendment is a table comparing certain elements in the claims in the present application with the disclosures of the references cited against the claims. The undersigned attorney has studied the references, and if a listed element of the present claims was found in a reference, it was noted by its location in the reference in the table. A blank space in the table corresponding to a claim element indicates that no disclosure of that claim element was found in the reference. The table is a convenient summary of the differences between the pending claims and

the references. The abbreviated descriptions of the claim elements are for purposes of convenient presentation in the table and do not change the actual claim language or scope.

The Examiner courteously granted an interview which was held on July 7, 2004, in the Examiner's office. A draft of the comparison table was discussed, and a sample of example number 8 from the application was shown to the Examiner. The remarks which follow reflect the discussion in the interview and are intended to fulfill the requirement for a written statement of the interview under MPEP 713.04.

At the end of part 12 of the Office Action, near the bottom of page 7, the Examiner has said that Applicants have failed to rebut the prima facie case of record. With all due respect, a prima facie case of obviousness has not been established on the record. MPEP §2142-2143 discusses a prima facie case of obviousness, and it requires that the prior art reference or references must teach or suggest all claim limitations. A prima facie case also requires that there must be a suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. There must also be a reasonable expectation of success in achieving the invention of the claims rejected. The teaching or suggestion to make the combination and the reasonable expectation of success must both be found in the prior art, and not in Applicants' disclosure.

As shown in the comparison table, not all of the claim limitations are found in the prior art references cited by the Examiner. The requirement that at least one of the continuous layers be a pressure sensitive adhesive (PSA) is not found in any of the references. Other limitations in the claims not found in the references are: the limitation to acrylic PSAs in claim 4; continuous layers made of foam PSA in claim 6; continuous layers made from the Markush group of blends of polyolefins and elastomers in claim 8; the discontinuous layers selected from a Markush group of cyclic polyolefins in claim 8; and the condition of two continuous layers between each discontinuous layer in claim 14.

There has been no showing of a suggestion or motivation to modify the prior art references cited in order to arrive at the inventions of the rejected claims or overcome the deficiencies listed in the previous paragraph. At Office Action page 5, the Examiner has asserted that the primary references disclose polymeric co-extruded multilayer webs which are made from a variety of thermoplastic and other conventional polymers which can include adhesives. Although WO '857

discloses adhesive or glue at page 27, lines 16-29, page 29, lines 18-21, and page 30, lines 25-33, it does not disclose PSA. PSAs are a class of adhesives recognized in the art and defined at specification page 5, first paragraph. The glue or adhesive layer discussed in WO '857 is for the purpose of adhering together the first and second polymers disclosed in that reference (p. 27, ll. 27-29). Nowhere does it discuss having a continuous layer of PSA.

Therefore, the Examiner's assertion that the primary references, "can be arranged in a wide variety of laminated embodiments such as those applicants claim" is specifically traversed. There has been no showing of multilayer webs as taught in any of the references in which there is a continuous PSA layer.

With respect to Applicants' dependent claims and independent claim 6, the Examiner has asserted (sentence bridging Office Action pp. 5-6) that these claims, "are each believed to merely recite a wide variety of well known polymeric compositions and related species as well as various design layers and other conventional structures that are well known to the skilled artisan." This statement by the Examiner is specifically traversed. Contrary to the requirements of the MPEP, there has been no showing of the claim limitations in the dependent claims being disclosed in the cited prior art. There is no support for the Examiner's assertion, and the claimed combinations in the dependent claims are neither conventional nor well known to the skilled artisan.

At Office Action page 6, the Examiner has said that the secondary references (Wyeth and Schrenk), "indicate that a particular co-extruded web structure involving a desired number of layers, each layer being either continuous or discontinuous in a desired direction and which may further utilize a plurality of distinct phases are each believed to be parameters that are well within the ordinary skill of the art." The Examiner goes on to make reference to Wyeth, col. 2, ll. 58-63, and Schrenk, col. 12, ll. 20-24. These disclosures in the secondary references are not the same as the discontinuous phases of the rejected claims.

In the rejected claims, the discontinuous phases must be discontinuous cross-web and continuous down-web. In the part of Wyeth to which the Examiner has referred, Wyeth speaks of interconnected or disconnected projections, grooves, pits, valleys, or corrugations in one or both of the sheets, but that refers to protuberances 13, projections 17, and projections 21 in Figures 2, 3, and 4 of Wyeth, which are all part of sheets 10, 16, and 20, respectively. As discussed during the interview, it is not a simple jump from Wyeth to the discontinuous layers of the rejected claims.

Wyeth's ridges, grooves, etc., are features of sheets which are, in fact, continuous and laminated to other sheets; whereas, the phases of the presently claimed discontinuous layers are separate layers within a multilayer coextruded web.

In the part of Schrenk to which the Examiner has referred, Schrenk is discussing iridescent films, coatings, rods, and filaments prepared using his apparatus. Referring to col. 11, l. 64 – col. 12, l. 19, Schrenk (in this passage) is actually discussing the embodiment of his figures 9 and 10 which is a rod or filament having a laminated configuration. His conductor 246 is extruded with at least two layers 247 to lend an iridescent characteristic. The extrusion of such iridescent filaments bears no relation to the presently claimed multilayer articles in which there are at least two discontinuous layers, continuous down-web.

The secondary references do not provide any of the missing elements from the primary references or a motivation to modify them.

In the first full sentence of Office Action page 7, the Examiner has noted page 5, lines 4-7 of DE '452 mentioning structures whereby different polymer melts are layered on top of each other. This passage in DE '452 is a discussion of the prior art over which DE '452 purports to be a new and distinct invention. It is admitted that the general concept of multilayer extruded films is well known in the art.

DE '452 teaches a thermoplastic film in which thermoplastic elastomer (TPE) is co-extruded with a thermoplastic resin and/or another TPE in parallel strips ("like two intersecting combs", see page 3, third full paragraph.). That film may be coated with a thin cover layer of plastic (page 7, sixth full paragraph). Although DE '452 discloses a cover layer on his thermoplastic film, the resulting film would not have at least two discontinuous layers plus at least three continuous layers, as required by the rejected claims. DE '452 distinguishes itself from multilayer films. In the penultimate paragraph on page 2 of the reference, it draws a contrast between its composite structure (having different synthetic resins side-by-side) with film layers on top of each other obtained through co-extrusion techniques. At page 5, second full paragraph, DE '452 further distinguishes its films from co-extruded multilayer films stating that the co-extruded films are isotropic. The goal of DE '452 is a film that is plastic in the length direction but elastic in the cross-web direction, page 2, fifth paragraph. Therefore, DE '452 adds nothing to supply the missing claim limitations.

Contrary to the Examiner's statement at Office Action page 7, Applicants have not made a contention of unexpected results. There is no need to assert unexpected results, since a prima facie case of obviousness has not been set forth.

Applicants have propounded, as further support for the non-obviousness of the claims in Group I, the benefits of the invention which there is no indication are possessed by any of the references cited. These benefits are as follows: embodiments of the inventive webs of claims 4, 5, and 7 have been demonstrated to have increased shear strength and peel strength over multilayer webs without the discontinuous layers, see specification page 12, line 31 – page 13, line 1, page 13, lines 11-14, and tables 1 and 2. Table 1 shows that the inventive examples (1-4) had shear strengths (values ranging from 5,223 to over 10,000) many times greater than the comparative examples (72 – 147). The data in table 2 show that the cross-linked inventive examples also had shear strength values much higher than the shear strength of the comparative example and substantially improved peel strengths. Claim 19 has been added to more distinctly claim the improved shear strength aspect of the invention.

The data in table 4 show that the elastic modulus and maximum force for the inventive examples (8-10) were significantly higher than the comparative example without embedded discontinuous layers (E-Modulus ranging from 1.98 to 3.70 as compared to 1.18). The art cited by the Examiner gives no hint that such improvements in physical properties would be obtained by modifying the teachings of the cited references. Claim 20 has been added to more distinctly claim the improved E-modulus property in the foam polymer adhesive just discussed. This was also discussed during the interview.

In short, the differences between the four cited patents and the rejected claims are clearly shown in the attached comparison table. In order to have the rejected claims from the teachings of the references, one would have to modify them as follows:

1. to have claim 1, specify that at least one continuous layer is PSA, despite the lack of any teaching in any of the references to do so;
2. to have claim 4, specify continuous layers of acrylic PSA, despite the absence of any teaching in the references to do so;
3. to have claim 6, make continuous layers of foamed PSA, despite the absence of any teaching in the references to use foamed PSA;

4. make continuous layers from the blends of polyolefins and elastomeric block copolymers specified in claim 8, despite the absence of any teaching in the references to do so;
5. combine the continuous layer blends just mentioned with discontinuous layer material selected from the Markush group of claim 8, despite the lack of any teaching in the references to do so; and
6. as to claim 14, make multilayer films having two discontinuous layers between each discontinuous layer without any instruction in the references to make such films.

The above modifications are too great and too numerous to be obvious to one of ordinary skill. Only hindsight, with the benefit of the knowledge of the present invention, would make such modifications possible.

In view of the above discussion, it is respectfully submitted that claims 1-8, 13, 14, 19 and 20 are in condition for allowance. Withdrawal of the rejection under 35 U.S.C. 103(a) and withdrawal of the restriction requirement are requested, and a notification of allowability is respectfully solicited. If any issues or questions remain the resolution of which the Examiner feels would be advanced by a conference with Applicants' attorney, he is invited to contact such attorney at the telephone number noted below.

Respectfully submitted,

July 8, 2004

Date

By:



Douglas B. Little, Reg. No.: 28,439

Telephone No.: (651) 733-1501

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833

S.N. 10/028,638	WO 92/12857 Schrenk	DE 19806452 A1	US 3,982,877 Wyeth	US 3,759,647 Schrenk
Claim 1, ≥ 2 discontinuous layers each layer comprising plurality of distinct phases that are continuous down-web	Abstract, Fig. 3, p. 6, ll. 26-31, p. 13, ll. 20-30, p. 14, ll. 21-24, p. 32, ll. 34-35			
≥ 3 layers continuous down-web & cross-web	Figs. 3 & 4		Col. 4, ll. 4-10	Col. 8, ll. 40-52
phases are embedded between continuous layers and	Figs. 3 & 4, p. 7, p. 10, ll. 11-22			
are separated from each other by continuous layer material	Fig. 3, p. 6, ll. 26-31, p. 10, ll. 11-15, p. 13, ll. 20-33, p. 14, ll. 21-32			
≥ 1 continuous layer is pressure sensitive adhesive				Col. 8, ll. 53-57
Claim 4 Continuous layers are acrylic pressure sensitive adhesive and				
discontinuous phases comprise non-pressure sensitive adhesive, thermoplastic polyolefin, etc.	p. 25, ll 8-9, 16			
Claim 6 continuous layers are foamed pressure sensitive adhesive				
Claim 8 continuous layers = Markush group blends of polyolefins and elastomers and				
discontinuous layers comprise Markush group cyclic polyolefins, etc.				
Claim 14 2 continuous layers between each discontinuous layer				